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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,700	07/31/2001	Makoto Itonaga	1994/00026	9909

7590 07/06/2004  
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EXAMINER

VUONG, BACH Q

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/917,700

Applicant(s)

ITONAGA ET AL.

Examiner

Bach Q Vuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-8 are rejected under 35 U.S.C. 112, first paragraph, as directed to a single means which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor. See *In re Hyatt*, 708 F.2d 712, >714-715, < 218 USPTQ 195, 197 < (Fed. Cir. 1983).

Claims 2-8 are directed to a single means claim because there only decoding means is recited in these claims for performing all the functions.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Endoh et al. (US 6,487,164).

Endoh et al., according to Figs. 1-8, shows an optical information recording medium comprising all features of the claimed invention as interpreted below:

Regarding claim 1, see Figs. 4-8 which show an optical information recording medium (see Figs. 4 and 7) comprising: a pit recording area (see pits P and area R) recorded with various control information by a prepit; and a user recording area (see area W) having a guide groove are approximately less than or equal to  $\lambda/10$ , where  $\lambda$  is the wavelength of a light source for reproducing information from the optical information recording medium (see depth D<sub>G</sub> in Fig.8).

Regarding claim 2, see Figs. 4-8 which show a recording and reproducing apparatus for an optical information recording medium comprising a pit recording area (see pits P and area R) recorded with various control information by a prepit, and a user recording area (see area W) having a guide groove, wherein a track for the user recording area is formed in groove format, the recording and reproducing apparatus comprising: decoding means (see BPF 84, waveform shaper 85 and decoder 88 in Fig. 6) for decoding information from the optical information recording medium by detecting a signal in a form of a tangential push-pull reproduced signal from pit recording area, and detecting another signal in a form of an aggregated signal from the user recording area (see disclosure of Fig. 7).

Regarding claim 3, see Figs. 6 and 7 which show a recording and reproducing apparatus for an optical information recording medium wherein the decoding means comprises a waveform equalizing circuit (see circuits 84 and 85) for obtaining a desirable partial response characteristic from the tangential push-pull reproduced signal.

Regarding claim 4, see Fig. 6 which shows a recording and reproducing apparatus for an optical information recording medium wherein the decoding means (see decoder 88) is a Viterbi decoder.

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Regarding claim 6, see Figs. 6 which shows a recording and reproducing apparatus for an optical information recording medium wherein the decoding means (see decoder 88) is a Viterbi decoder.

Regarding claim 8, see Figs. 4-8 reproducing apparatus for an optical information recording medium comprising a pit recording area (see pits P and area R) recorded with various control information by a prepit, and a user recording area (see area W) having a guide groove, wherein a track for the user recording area is formed in groove format, the reproducing apparatus comprising: decoding means (see BPF 84, waveform shaper 85 and decoder 88 in Fig. 6) for decoding information from the optical information recording medium by detecting a signal in a form of a tangential push-pull reproduced signal from pit recording area, and detecting another signal in a form of an aggregated signal from the user recording area (see disclosure of Fig. 7).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endoh et al. (US 6,487,164) in view of Umezawa et al. (US 5,790,492).

Endoh et al., according to Figs. 4-8, shows all the features of the instant claimed invention (see the rejection above) except for the use of a partial response polynomial equation as particularly recited in claims 5 and 7. Umezawa, according to Figs. 2, 7 and 8, teaches the use of a partial response system (see column 7, line 59 through column 8, line 64). It would have

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been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the partial response system as taught by Umezawa et al. into the optical head of Endoh et al. in order to improve the recording and reproduction apparatus for an optical disc of high recording density type.

*Cited References*


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an optical recording and reproducing apparatus for an optical recording medium having read-only area and writable area thereon.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bach Q Vuong whose telephone number is (703) 305-7355. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BV  
June 25, 2004

  
THANG V. TRAN  
PRIMARY EXAMINER